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CPT TODD J. BRIERE, MS, U.S. ARMY					
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Military hospitals are experiencing an increasing need to ensure the delivery of an acceptable, high quality product to its customers. A skilled staff and experienced, well trained mid-level managers are key elements to increasing managerial efficiency and effectiveness, and ensuring quality health care services. Realizing this, the executive level managers of Moncrief Army Community Hospital (MACH), Fort Jackson, SC, were concerned that their mid-level managers were lacking competency in requisite management skills, knowledge, and abilities (SKAs), and that these deficiencies were a detriment to MACH's mission and the quality of services. This study's purpose was to identify the training needs of MACH's mid-level managers and provide recommendations for a management development program. Utilizing a mailed self-assessment instrument, the individually perceived training needs of MACH mid-level manager's in 91 SKAs were identified, and correlations were demonstrated within various mid-level manager demographic and SKA training need relationships. Results demonstrated that MACH mid-level managers have a need for training in all required SKAs, and that some demographics were predictive of training needs. Findings suggest that a fully reengineered management development program for MACH mid-level managers must be implemented and further evaluation of training needs for all levels of MACH's managers is warranted.					
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GRADUATE PROGRAM IN HEALTH CARE ADMINISTRATION

**TRAINING NEEDS OF MID-LEVEL MANAGERS AT
MONCRIEF ARMY COMMUNITY HOSPITAL,
FORT JACKSON, SOUTH CAROLINA**

A GRADUATE MANAGEMENT PROJECT
SUBMITTED TO
MAJOR MARK J. PERRY, Ph.D.
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTERS OF HEALTH ADMINISTRATION

BY
CAPTAIN TODD J. BRIERE

FORT JACKSON, SOUTH CAROLINA
JUNE 1996

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ABSTRACT

As with all businesses competing in today's economically oriented health care environment, health service organizations are experiencing an increasing need to ensure the delivery of an acceptable, high quality product to its customers. A skilled staff and experienced, well trained mid-level managers are key elements to increasing efficiency and effectiveness in administrative and managerial functions and processes, and therefore, ensuring quality health care service. Recognizing this, the executive and senior level managers of Moncrief Army Community Hospital (MACH), Fort Jackson, South Carolina, were concerned that their mid-level managers were lacking competency in some requisite management skills, knowledge, and abilities (SKAs), and that these deficiencies were a detriment to the organization's mission and to the quality of services provided. The purpose of this study was to identify and quantify the training needs of MACH's mid-level managers and provide recommendations for a management development and training program. Utilizing a self-assessment instrument in the form of a mailed survey and sociodemographic questionnaire: the individually *perceived* or *self-reported* training needs of a sample of MACH mid-level managers ($n = 94$) in 91 predetermined requisite SKAs and eight categories were identified, and statistically significant correlations were demonstrated within various mid-level manager sociodemographic and SKA training need relationships. The results of this study demonstrated that all MACH mid-level managers

have more than a marginal need for training in all required SKAs, and, although sociodemographics were not systemically predictive of individual and group training needs, certain sociodemographic-SKA relationships did demonstrate significance. Lastly, the findings of this study suggest that a fully reengineered management development and training program for MACH mid-level managers must be implemented and that further evaluation of training needs for all levels of managers and supervisors at MACH is warranted.

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CHAPTER 1

INTRODUCTION

As with all businesses competing in today's economically oriented health care environment, health service organizations (HSOs) are experiencing an increasing need to ensure the delivery of an acceptable, high quality product to its customers. A skilled staff and experienced, well trained mid-level managers are key elements to increasing efficiency and effectiveness of a HSO's administrative and managerial functions and processes, and therefore, ensuring quality health care service. Mid-level managers with poor managerial abilities are a detriment to a HSO's mission and an organizational liability. Poor management can lead to an increase in institutional costs, employee morale problems, and customer dissatisfaction. Fortunately, successful internally designed management development and training programs can provide the skills, knowledge, abilities, and experience needed to develop and maintain efficient and effective mid-level managers.

The focus of this study is to identify the individually *perceived* or *self-reported* training needs of mid-level managers at Moncrief Army Community Hospital (MACH), Fort Jackson, South Carolina, upon which course criteria and content for a proposed MACH management development and training program may be developed. The assumption of MACH's executive level managers, as well as various other senior managers, is that some requisite management skills, knowledge, and abilities (SKAs) of current mid-level

managers are weak or lacking. MACH's executive level managers are concerned that this deficiency is a detriment to the organization's mission and to the quality of services provided. This concern has become manifest in that effective management development is now a major goal included in the organization's formal strategic plan (USA MEDDAC 1996).

Conditions Which Prompted the Study

As a result of personnel right-sizing activities and the ongoing emphasis within the military health care system for improving the efficiency and effectiveness of performance in order to maintain and improve a quality organizational product, shortcomings in managerial performance became highly noticeable to MACH's executive level managers. Conversations with various staff members and managers at all levels identified a concern that many managers at all levels of the MACH organization appeared to be ill prepared for managerial responsibilities. MACH's executive level managers were seriously concerned with the organization's ability to acquire and maintain a pool of experienced and well trained mid-level managers, and had requested that a management development and training program for mid-level managers be developed based on health care industry standards and MACH's specific and unique internal managerial requirements.

The following are identified issues which prompted the concern that MACH mid-level managers were lacking the requisite SKAs to effectively perform their functions:

- MACH executive level and senior mid-level managers were reporting inappropriate accomplishment of numerous basic managerial functions and processes (i.e., subordinate evaluations, counseling and conflict resolution, and accountability issues) by subordinate managers.

- MACH health care providers, such as physicians and nurse practitioners, had very little previous management experience or training prior to being placed in mid-level management positions.
- Due to their daily medical responsibilities, providers, particularly physicians, in management positions had very little time in which to acquire the necessary management SKAs on-the-job or through current training opportunities.
- Nursing personnel were typically placed in management positions of successively greater responsibility and gradually acquire the necessary SKA competency through on-the-job experience. Unfortunately, a significant number were being transferred from MACH just as they gained experience, but prior to their placement in established mid-level management positions.
- There was a shortage of both military and civilian mid-grade nursing personnel who would traditionally occupy mid-level management positions. Inexperienced junior nursing personnel were being placed in these positions.
- The majority of mid-level administrative management positions were being increasingly filled by junior officers, non-commissioned officers (NCOs), and Department of the Army civilians (DACs) who had very little management training and experience.

Constraints

One constraint has been identified as having an impact on the outcome of this study. Ideally, in order for a managerial needs assessment study to include all areas of concern, leadership ability and job specific technical competency (i.e., nursing skills) should also be evaluated. The time constraints and the limited objectives of this study required that it focus only on those management functions and processes that do not directly reflect aspects of leadership ability or technical competency. No other constraints of concern were identified.

Statement of the Problem

The central question that this study attempted to answer was "In which SKAs do which MACH mid-level managers perceive they need training and to what magnitude?". The problem was to identify required managerial SKAs relevant to MACH for use as course content for a mid-level management development and training program, ascertain the perceived SKA training needs for identifying areas of program concentration, and develop a training need profile of the various sociodemographic groups of mid-level managers in order to demonstrate any sociodemographic-SKA training need relationships.

Literature Review

The literature review for this study was focused in three general areas: defining managers and delineating general managerial responsibilities; identifying required managerial SKAs for mid-level managers; and defining needs, conducting needs assessments, and delineating assessment criteria. The underlying theme of the review is to conduct an analysis of the concepts, criteria, and original study designs of HSO management development and training studies, courses, and programs. Rowland and Rowland (1993) write that "management development is education designed to improve the administrative and managerial skills of the management team." *Management development* is the most recent topic added to military HSO staff training programs because of its demonstrated importance to overall organizational performance.

The majority of published materials pertaining to HSO supervisors and managers either identify, evaluate or analyze management competencies, or define characteristics

and traits of good leadership (Dubnicki and Sloan 1991; JCAHO 1995; Henninger et al. 1994; Matey 1991; Rowland and Rowland 1993 and 1995). Although it is extremely important, leadership ability is only one managerial SKA and only one facet of a good manager. Nursing professionals have conducted numerous nursing management needs assessment studies in the past, but the majority of HSO managerial SKAs analyses and management development research appears to remain the purview and responsibility of the individual institutions and organizations concerned.

With the current and continuing trend of flattening HSO structures and downsizing of mid-level management ranks, the scope of duties, authority, and responsibility of the remaining mid-level managers will increase in number and broaden in scope. These increases will decentralize authority and be the impetus for the rise in utilization of existing first-line supervisors and clinicians as mid-level managers (Coile 1990). Unfortunately, Smith, Ross, and Smith (1980) and Richardson and Sherwood (1983) demonstrated in their research that clinicians preferred training in clinical areas and the findings are suggestive of an avoidance by clinicians for administrative and managerial training. Furthermore, it has been noted that physicians and nurses are frequently promoted to management positions because of their clinical expertise alone and are in considerable need for formal management training to fulfill the demands of their new roles (Paradis et al. 1989; Rowland and Rowland 1993). These predictable changes in management structure demands that HSOs identify more effective means to train and develop new managers and that clinicians become primary candidates for mandatory management development and training.

Managers, Managerial Responsibilities, and SKAs

A HSO manager is generally defined as: a person formally appointed to a position of authority, who enables others to do their work effectively, who has responsibility for resource utilization, and who is accountable for work results (Griffith 1992; Rakich, Longest, and Darr 1994); and informally, those persons with accountability for *responsibility center managers* (i.e., first-line supervisors) (Griffith 1992). According to Rakich, Longest, and Darr (1994), the traditional classification of managers is by level in the organizational hierarchy: top, executive, or senior-level management; middle or mid-level management; and supervisory or first-line management. Paradis et al. (1988) defined supervisors as "those who supervise workers only, [mid-level] managers as those who manage supervisors," and "[executive level] managers as those who manage managers." The primary differences between levels are the degree of authority and the scope of responsibility and organizational activity at each level.

All managers have several common attributes: formal appointment to positions of authority; charged with directing and enabling others to do their work effectively; responsibility for the utilization of resources; and accountability to superiors for results (Rakich, Longest, and Darr 1994). The duties common to all managers, often referred to as *functions of management*, are planning (forecasting), organizing (establishing authority, relationships, and formal structure), staffing (determining organization needs and acquiring, maintaining, and improving staffing), directing (initiating and maintaining action towards desired objectives), coordinating (synchronizing activities toward established goals), controlling (focusing actions and directing human behavior, to include monitoring,

adjusting and improving actual performance), and decision making (JCAHO 1995; Rakich, Longest, and Darr 1994; Rowland and Rowland 1993 and 1995). With the addition of [personal] role transition, Metzger, Ferentino, and Kruger (1984) developed a training needs self-assessment for managers that identified the same general responsibility categories. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) identifies the general processes of which a manager is responsible as planning and designing services, directing and staffing, integrating and coordinating services, and improving performance (JCAHO 1995). These processes include the following SKAs: defining and communicating organizational vision, mission and values; development of long-range, strategic, and operational plans; inter-departmental communication and coordination; organization and job design; competent staff acquisition, maintenance, and improvement; budget development and management; resource allocation; decision making; quality management and improvement; and, continuing education and training.

In the 1992 Defense Appropriations Act, Congress mandated that military medical treatment facility (MTF) commanders are to be required to demonstrate "professional administrative skills" (Deputy Secretary of Defense 1991). A task force was charged by the Assistant Secretary of Defense for Health Affairs to identify "managerial competencies" (Hudak, Brook, and Finstuen 1994) or skills relative to private sector health care administrators but required for successful command of MTFs. The Department of Defense (DoD) task force identified the 40 skills listed at Table 1 (Required Competencies of Military Healthcare Executives and Administrators) (Schwartz and Cox 1992). Based on the task force's results, two studies conducted by

TABLE 1**REQUIRED COMPETENCIES OF MILITARY HEALTHCARE EXECUTIVES AND ADMINISTRATORS**

MILITARY MEDICAL READINESS	Regulations External Accreditation	Conflict Resolution Managing Change/Technical Innovations
Contingency Planning Medical Doctrine Joint Operations/Exercises Total Force Management National Disaster Management/ Dept. of Veterans Affairs Role Medical Readiness	HEALTH RESOURCES ALLOCATION & MANAGEMENT Financial Management Personnel Management Material Management Facilities Management	GENERAL CLINICAL UNDERSTANDING Managing Quality Epidemiological Methods Productivity/Outcome Measures Clinical Investigation Knowledge of Alternative Delivery Systems
GENERAL MANAGEMENT	MEDICAL ETHICS Patient Rights (Informed Consent) Patient Rights (Right to Die & DNR)	ADDITIONAL COMPETENCIES Leadership Military Mission Total Quality Management Personal and Organizational Ethics Public and Media Relations Public Speaking
HEALTH LAW/POLICY	ORGANIZATIONAL BEHAVIOR Group Dynamics Individual Behavior Organizational Design Labor Management/Relations	

Hudak, Brook, and Finstuen (1994) and Hudak et al. (1993) identified nine functional areas or "domains" (cost-financing, leadership ability, professional staff relations, health care delivery concepts, access to care, ethics, quality and risk management, technology, and marketing) that current civilian and military health care executives perceive as important future issues for health care executives and, therefore, managers further down the organizational hierarchy. Among the domains identified, communications, human management and relations, strategic vision and planning, physician motivation, conflict resolution, and hospital finance/cost accounting were judged to be the most important management SKAs needed. A study conducted by Richie, Tagliareni, and Schmitt (1979) supports the research by Hudak, Brook, and Finstuen, Hudak et al., and Schwartz and

Cox. The study suggested a list of necessary competencies for middle managers that included, among others, organizational skills (i.e., planning, implementation), human relations, fiscal management, oral and written communication, public and community relations, and data processing.

Mid-level managers primary responsibilities include systems design, support systems maintenance, managing inter-unit or office difficulties, information systems design and maintenance, communication, responsiveness, fitting expectations to outside exchange needs, and managing the incentive system (Griffith 1992). Paradis et al. (1989) stated that first-line managers (supervisors) and mid-level managers share equally in delegating tasks, documenting employees' performance, and completing performance evaluations. However, mid-level managers were most likely to be directly accountable for promoting and terminating employees, managing conflicts, handling grievances, running staff meetings, and controlling inventories (Paradis et al. 1989).

Previous training programs for mid-level managers have typically utilized the *general* SKA categories of leadership, communication, planning and organizing, [material] management, personnel [or human resource] management, finance and budget management, and professional network development as the framework for course curriculum (Dunne, Ehrlich, and Mitchell 1988; Henninger et al. 1994; Metzger, Ferentino, and Kruger 1984; Paradis et al. 1989). A study of mid-level nurse managers in nine SKA categories (clinical practice, planning and organization, fiscal management, resource utilization, problem-solving and decision-making, communication, development of staff, recruitment, and professional self-development) demonstrated that post-training

testing scores increased significantly over pre-training scores in six of the categories (clinical practice, planning and organization, fiscal management, problem-solving and decision-making, communication, and professional self-development) (Henninger et al. 1994). Similarly, the results of a needs assessment conducted by a hospital in Minneapolis, Minn., were utilized to create a highly successful management development program for physician executives (Marr and Kusy 1993). The self-assessment identified management skills, leadership skills, and individual and group interpersonal skills as being significant training dimensions for physician managers. Both of these studies demonstrated the potential of a well coordinated management development program for clinicians to improve management skills and performance.

Federal General Schedule (GS) classification standards for mid-level supervisors (the term managers is not utilized in the GS classification system), GS grades 5 through 15, identifies four levels of supervisory and managerial responsibility and authority (U.S. OPM 1993). General Schedule standards state that employees, GS levels 4 and below, can not be supervisors. The primary differentiation between the four supervisory and managerial levels are: number of layers of supervisory levels below and above the position; scope of hiring selection, counseling, and termination authority; scope of scheduling and planning authority; scope of conflict resolution authority and inter-departmental communication responsibility; and scope of ability to establish goals and objectives, and oversee an organization function or program. The first or lower level equates to first or front-line supervisors. The remaining levels equate more closely to this study's definition of mid-level manager responsibilities. The U.S. Office of Personnel

Management (OPM) loosely delineates GS-5 through -8 positions as *lower* or *junior* level supervisors and GS -9 through-15 as *upper* or *senior* level supervisors (U.S. OPM 1993).

Federal Wage System for Supervisors (WS) classification standards state that a wage grade supervisory position must include the following criteria: administrative/personnel accountability; relative organizational segmentation; substantive mission related work; and technical accountability (quality and quantity) (U.S. OPM 1992). The eighteen WS grade levels are differentiated through the application of three factors: the nature of supervisory responsibility; the level of work supervised; and the scope of work operations supervised. WS grade levels are not normally differentiated into subgroups, but they can be subdivided as junior or senior level if one applies the criteria listed above on an individual basis.

Needs and Needs Assessments

Conducting a needs assessment is a critical first step in planning, developing and implementing educational activities for management development (Jazwiec 1991a.). Much of the literature on how to conduct management development and training needs assessments dwell on defining the concept of *need* as it applies to one's study as well as in a generic context (Jazwiec 1991b.; Kristjanson and Scanlan 1992). Atwood and Ellis (1971) identified a need as a "deficiency that detracts from a person's well-being" and described four types of need: *real needs* (objective deficiencies that may or may not be recognized by the one who has the need), *education needs* (educational deficiencies that can be satisfied by a learning experience), *real education needs* (SKAs that are lacking,

but for which competency can be increased through experience), and *felt needs* (needs regarded as necessary by the individual(s) involved). Monette (1977) suggested that felt needs are limited by "individuals' self awareness" and may be inflated needs or needs that are unrecognized. Several authors have depicted the concept of need as a gap between a current set of circumstances and a desirable set of circumstances (Beach 1982; Pennington 1980; Schriven and Roth 1978; Walton 1969). Circumstances can be described in terms of SKAs, and needs can deal with deficiencies among individuals or groups of individuals (Kristjanson and Scanlan 1992).

Although, sociodemographic factors have proven disappointing as variables predicated a need for further training (McLeod 1979), they can be useful in developing profiles or models of individuals or groups with specific training needs. Age and highest level of education attained are the two sociodemographic factors that are consistently used in needs assessment research (Curran 1977; Henninger et al. 1994; McGoldrick, Jablonski, and Robinson 1994; Paradis et al. 1988) Other sociodemographic factors that are frequently utilized are gender (sex), marital status, race (ethnic origin), number of full-time equivalents (or individuals) managing(ed), years in management positions, continuing education programs attended, and routinely read professional periodicals (Henninger et al. 1994; McGoldrick, Jablonski, and Robinson 1994; Paradis et al. 1988; Sullivan et al. 1991).

Purpose

The objectives of this study were to: clarify the definition of a mid-level manager within MACH; identify basic management requirements or SKAs for all MACH mid-level managers; identify in which SKAs which MACH mid-level managers perceive they need training and to what magnitude; identify mid-level manager sociodemographics which would be predictive of SKA training needs; and provide input and recommendations for use in the development of a MACH management development and training program.

Variables and Operational Definitions

The *dependant* variables in this study are various permutations of scores obtained from a mid-level manager training needs self-assessment performed by MACH mid-level managers. The *independent* variables used in the study are the following sociodemographic features:

- *Age.* Each subject was identified by age in years and assembled into the following year groups: 17-24, 25-34, 35-44, 45-54, 55-64, and 65+.
- *Gender.* Each subject was identified as either male or female.
- *Rank.* Each subject was identified as either an officer, NCO, or DAC (GS and WS), and each in turn was further classified as either junior or senior in rank.
- *Estimated Salary.* Each subjects estimated base salary was identified by utilizing the 1996 Military Pay Scale (U.S. President 1995), GS Advance Salary Table (U.S. President 1994), and WS Wage Rate Schedule (Chief, Wage Setting Division 1994). Provider pay bonuses were not included.
- *Functional Status.* Each subject was identified as either *clinical* or *non-clinical* utilizing the U.S. Army Military Occupational Specialty (MOS) and Area Of Concentration (AOC) (DA 1994), Federal Government's WS or GS Job Series classification systems (U.S. OPM 1992 and 1993), current job descriptions, and MACH executive level management directives.

- *Duty Status.* Each manager-clinician was identified as to whether or not their *duties* were primarily (more than 50%) clinical or non-clinical.
- *Number of Years in Present Position.*
- *Number of Years of Active Military Service.*
- *Number of Years of Civil Service.*
- *Number of Years in Supervisory/Management Positions.*
- *Largest Number of Personnel Supervised at One Time.*
- *Formal Civilian Education.* Each subject was identified by the highest level of formal civilian education completed. These include high school/GED, associate's degree, bachelor's degree, master's degree, and doctorate or terminal degree.
- *Military Education.* Each subject was identified by the military education courses completed. These include Primary Leadership Development Course (PLDC), Basic NCO Course (BNCOC), Advanced NCO Course (ANCOC), First Sergeant (1SG) Course, Sergeants Major Academy (SMA), Warrant Officer Candidate/Officer Candidate School (WOC/OCS), Officer Basic Course (OBC), Officer Advance Course/ Combined Logistics Officer Advance Course (OAC/CLOAC), Combined Arms and Services Staff School (CAS³), Command and General Staff College (CGSC), and Army Management Staff College. Due to the possibility of individuals not completing courses in a *linear* fashion, special note was taken as to the highest level course completed.

Several operational definitions have been developed specifically for this study and will not meet traditional Federal, military, civilian, or industry standards. For the purpose of this study, the following operational definitions are provided.

Training is the act or process of acquiring and becoming proficient in skills, knowledge, and abilities through experience, instruction, and practice. *Skills* are "task related competencies" (Ivancevich and Matteson 1993), *knowledge* is acquaintance with facts, truths, or principles through erudition, or active learning, and *abilities* are traits, innate or learned (Houghton Mifflin Company 1995), that "permits a person to do

something mental or physical" (Ivancevich and Matteson 1993).

A *manager* is defined as an individual formally given the operational responsibility for an organizational element within MACH, to include the control and manipulation of resources (i.e., personnel, equipment, supplies) and expenditures (i.e., finances, budget processes), and who is accountable for the work results of that element and its personnel.

Executive level managers at MACH are the Commander, the Deputy Commanders and the Command Sergeant Major. Table 2 (Defining Criteria Delineating a MACH Mid-level Manager) outlines the criteria upon which a *mid-level manager* at MACH is defined.

MACH's executive level managers decided to exclude the Safety Manager, Auditor, Hospital Attorney, Red Cross Chairperson, and contract employees from the study due to the unusual nature of their positions. Furthermore, those individuals not recognized as

TABLE 2

DEFINING CRITERIA DELINEATING A MACH MID-LEVEL MANAGER

- Formally appointed to a position of authority per MACH's Table of Distributions and Allowances (TDA) document (USA MEDDAC 1995), or command or division/department directive.
- A DAC, designated as a supervisor per WS and GS classification systems.
- A DAC, GS-5 through -14 or any level WS; an NCO, E-5 through -8; or an officer, WO-1 through O-6. Other ranks were considered on a case by case basis.
- Supervises and *rates* (monitors and, formally or informally, evaluates performance) one or more personnel at MACH.
- Organizes, plans, and schedules work.
- Maintains or is responsible for a budget.
- Controls or coordinates resources.
- Is not the Medical Company Commander, Medical Company First Sergeant, Medical Holding Company First Sergeant, a MACH executive level manager, or Veterinary Command or Dental Command personnel.

having formal supervisory or managerial responsibilities, regardless of rank or status, are referred to as *staff* or *non-supervisory personnel*.

A *clinician* is generally identified as any person, regardless of rank and formal degree held, who is formally trained in a clinical skill and actively performs hands-on clinical duties. As per executive level directive, all physicians (MD and DO), except the Deputy Commander for Clinical Services, are considered clinical personnel, regardless of position and scope of authority and responsibility. *Duty status* of clinicians merely refers to the quantity of time spent performing clinical duties as opposed to administrative duties.

An *officer* is any U.S. Army Medical Department active duty appointed (i.e., warrant) or commissioned officer, ranks WO-1 through O-6, permanently assigned to the U.S. Army Medical Department Activity (MEDDAC), Fort Jackson, with a duty position at MACH. *Junior officers* hold the ranks WO-1 through O-3 and *senior officers* hold the ranks O-4 through -6. An *NCO* is any active duty enlisted non-commissioned officer, ranks E-5 through -8, permanently assigned at MEDDAC, with a duty position at MACH. A *junior NCO* is an E-5 or E-6 and a *senior NCO* is an E-7 or E-8. A *civilian* is any full time DAC, GS levels 5 through 14 or any WS, employed at MACH. *Junior civilians* are any WS and GS-5 through -8, and *senior civilians* are GS-9 through -14.

Hypothesis

Various sociodemographic factors of MACH mid-level managers are predictive of management training needs as represented by self-assessment scores. Formal hypotheses of this statement may be stated as: there is no systematic relationship between self-

assessment scores and sociodemographic factors (H_0 or *null hypothesis*); and, a systematic relationship between self-assessment scores and sociodemographic factors does exist (H_a or *alternate hypothesis*).

CHAPTER 2

METHODS AND PROCEDURES

Study Design and Analysis

The target subjects in this study are the population of mid-level managers employed (DAC personnel) or assigned (U.S. Army active duty personnel) to MACH. After defining and applying the parameters of what a mid-level manager is at MACH, 178 (N) military and civilian personnel were identified as the target population for this study. As seen in Table 3 (Sociodemographics of Target Population (N = 178)), the target population consisted of 110 males, 68 females, 68 officers, 69 enlisted soldiers, 41 DACs (40 GS and 1 WS), 107 clinicians, and 71 non-clinicians.

TABLE 3
SOCIODEMOGRAPHICS OF TARGET POPULATION (N = 178)
Number of Subjects (Percentage of N)

Rank	Clinicians		Non-clinicians		Totals
	Male	Female	Male	Female	
Officers	28 (15.73)	22 (12.36)	14 (7.87)	4 (2.25)	68 (38.20)
Enlisted	32 (17.98)	6 (3.37)	18 (10.11)	13 (7.30)	69 (38.76)
DACs	8 (4.49)	11 (6.18)	10 (5.62)	12 (6.74)	41 (23.03)
Subtotals	68 (38.20)	39 (21.91)	42 (23.60)	29 (16.29)	-
Totals	107 (60.11)		71 (39.89)		178 (100.00)

All MACH personnel identified as mid-level managers were provided copies of the study instrument utilizing MACH's internal document distribution system. In an attempt to assure a high response rate, a letter of introduction and explanation (see Appendix 1), with identified suspense date, was provided to all MACH's pre-designated mid-level managers one week prior to distributing the instrument. An envelope with a return address label was provided with each instrument for use in MACH's distribution system and, again, a clearly defined suspense date was provided. A general notice was distributed hospital wide the next work day following the suspense date as a reminder to those who had not yet completed and returned the instrument. Lastly, announcements regarding the study and the instrument return deadline were made in key meetings during the two weeks following the deadline.

Each returned individual instrument data set was coded with a *case number* utilizing the last four digits of each subject's Social Security Number (SSN) or, if the SSN was not provided, a sequential number beginning with 0001. This provided a degree of anonymity to the study, reduced the impact of bias on the results, and provided an identification mechanism for each individual data set.

The information gathering instrument for this study was a mid-level manager *training needs self-assessment* consisting of three parts: a demographic questionnaire; a survey; and a lined page provided for comments, concerns, or recommendations on any part or all of the assessment. The questionnaire simply required the subjects to provide answers to fourteen sociodemographic questions (see Appendix 1). The *age, gender, rank, functional status, duty status, and civilian and military education* information

collected from the questionnaire was converted into nominal data on dichotomous or binary scales. All other data was retained in interval form on continuous scales.

The survey, titled *Skills, Knowledge, and Abilities Survey*, required the subjects to rate their own perceived level of need for managerial training utilizing the list of 91 predetermined SKAs identified at Table 4 (Required Skills, Knowledge, and Abilities of MACH Mid-level Managers). The SKAs are subdivided into eight *functional* categories from which *category scores* are obtained. Cumulative *total survey scores* were calculated from each survey. All scoring data were in interval form and on a continuous scale. The survey utilized the 5-point rating or scoring scale in Figure 1 (Level of Training Need Rating Scale) to identify the level of training that a mid-level manager perceived he or she

Least ₁ ₂ ₃ ₄ ₅ **Greatest**

Level: 1 = Very Low Need 2 = Low Need 3 = Medial Need 4 = High Need 5 = Very High Need

Figure 1. Level of Training Need Rating Scale

needed. On the scale, one (1) is the lowest or least perceived need for training and five (5) is the highest or greatest perceived need level for training. The data from the individual assessments were collated, tabulated, and scored utilizing Access (Version 2.0) by Microsoft Corporation. Descriptive and inferential statistics were calculated utilizing Excel (Version 5.0) by Microsoft Corporation, and SPSS for Windows (Release 6.0, Student Version) by SPSS Incorporated. The averages of all survey scores were calculated utilizing the *mode* as the measure of central tendency for individual SKA

TABLE 4
REQUIRED SKILLS, KNOWLEDGE, AND ABILITIES OF MACH MID-LEVEL MANAGERS

MACH ORGANIZATION, PLANNING, & READINESS	Promotion Actions Separation Actions Personnel File Maintenance	Work Order Procedures Reconciliation Requirements (Supplies & Services)
Vision, Mission, & Values Goals & Objectives		Receiving & Acceptance Procedures
Military Readiness Plans & Issues (i.e., PROFIS, EPP, NDMS)	Accession & Retention Issues & Actions Physical Profile Actions Recognition & Award Actions Disciplinary Actions Chapter Actions	Capital Equipment Requesting Procedures (CEEP, MEDCASE) Property Accountability Requirements/Thresholds (Hand Receipt Issues)
HUMAN RESOURCE MANAGEMENT		Key Control Source/Item Identification Process/Procedures
<i>Staffing & Manning</i>	Personnel File Maintenance	
TDA Development & Maintenance Developing Job Descriptions Personnel Assignments & Status Changes Scheduling and Time Keeping	Conflict Resolution Handling Complaints Writing Skills (Memorandums, reports) Speaking & Presentation Skills	QUALITY MANAGEMENT & SAFETY
Subordinate Personnel External Personnel Resources (USAR, WAE, Red Cross)	INFORMATION MANAGEMENT	JCAHO Standards & Survey Process OSHA Requirements/Standards Accident/Incident Reporting & Management Risk Management Utilization Management Infection Control Program Quality Management Programs (TQM, CQI) Customer Service Issues & Actions Safety Programs
<i>Subordinate/Staff Development</i>	Automation Use (Computer, Mouse) Software Use (Word/Data Processing, Graphics) Telecommunication Use (FAX, E-mail) System & Telephone Work Orders Management & Release of Information (MARKS, FOIA, Privacy Act)	Fire Prevention & Protection HEALTH CARE, LAW, POLICY, & ETHICS
Mentoring Program Competency Assessments Education & Training Opportunities & Requirements	Capability Request Use & Procedures Publication & Form Request Procedures Policy & Procedures Development & Monitoring	Government Involvement & Its Impact on Health Services Public Law (State & National) National, DoD, & Army Health Care Policies Eligible Beneficiaries Limitations of Medical Benefits Medical Liability Issues Army Health Care Regulations <i>Patients Rights & Responsibilities</i>
Staff Development Folder Maintenance Rating Scheme Development & Maintenance Counselling Developing Performance Standards OER/NCOER Systems Civilian Performance Appraisals (TAPES)	Capitation and Funding Methodology Financial Management of Supplies Local Financial Management Guidance PBAC Processes Budget Development & Monitoring Cost Containment & Control TDY & Training Request & Approval Credit Card Acquisition & Use (AmExp, VISA) Third Party Collection Program	Confidentiality Informed Consent Advance Directives Handbook & Bill of Rights TRICARE Program CHAMPUUS Delta/United Concordia Dental Program
<i>Civilian Personnel Issues</i>	SUPPLY, EQUIPMENT, FACILITY, & SERVICES MANAGEMENT	Supply & Service Requesting Processes Procurement Methods (Credit Cards, BPA) & Contracting Thresholds
Labor Management/Relations (MER, Union) EEO Laws, Regulations, & Issues Grievance Procedures Civilian Awards Program Interviewing & Hiring Actions		

question responses and the *mean* for cumulative category and total scores.

A correlation matrix was developed utilizing Microsoft's Excel. The matrix's results, in the form of correlation coefficients (*r*), were inspected for any feature with a calculated value greater than the critical value of $\alpha = .05$ and demonstrating possible significance of correlation. Inferential statistics and result probabilities were calculated for those features demonstrating possible significance of correlation by utilizing Excel and SPSS. A *t*-test and an *F*-test were calculated for each variable using one-way analysis of variance (ANOVA) tests to compare sociodemographic factors in dichotomous form with continuous category and survey scores, and simple regression analyses in comparing sociodemographic factors in continuous form with continuous category and survey scores.

Validity and Reliability

The self-assessment instrument utilized in this study was developed for the sole purpose of identifying and evaluating the management training needs of MACH'S current mid-level managers and, therefore, has never been previously validated. The SKAs used in the self-assessment were identified and validated through three iterations of an informal *Delphi* methodology. An original recommended list of SKAs was developed by the primary investigator through direct interviews with MACH staff and managers, a literature review, and a review and analysis of military and civilian job descriptions, standards, and competencies. The list was evaluated by MACH's Department of Education and Training (DET), and twice modified by an informal panel of MACH executive level and senior mid-level managers, and subject matter experts. The instrument's survey format and

demographic questionnaire were modified and validated through two iterations of the same informal Delphi methodology.

Identifiability of participants in the study is only possible if one had access to the original completed assessments and MACH'S personnel files. To control the likelihood of bias, all properly completed surveys, returned prior to initiation of formal data collation, were utilized. No self-assessment was turned down due to any particular sociodemographic response (or non-response). The only method utilized to ensure a reasonable sample representativeness was to forward a self-assessment to all MACH mid-level managers (N).

The very nature of the type of study having been conducted and the instrument used, created difficulties in controlling reliability and consistency. The *accuracy* of the sample (**n**) collected relied on the assumption that all participants in the study answered all questions honestly (i.e., self-reported bias). Extraneous variables such as individual *attitude, personality, and non-management related perceptions* are sure to have had an impact on the study subjects' responses. The self-assessment results are predicated on the subjects *perception* of their own need for further training in the individual SKAs and functional categories. An example of this would be if subjects perceive they do not need a particular SKA, regardless if they actually do or not, the subjects' scores will reflect a skew towards a *low* perceived needs result or no answer resulting in missing data. Furthermore, due to the study parameters (i.e., SKAs, definitions, executive level directives) having been specifically designed for MACH, the assessment instrument is only reliable when utilizing population samples from MACH and no other facility.

In order to increase the reliability and consistency of responses within the study, instructions, definitions, and a statement of intent explaining the necessity of the study, were provided to each subject. To increase the reliability and consistency of analysis and interpretation of responses, only the primary investigator collated and input data and conducted the analysis.

CHAPTER 3

RESULTS

Sociodemographics and Descriptive Statistics of Sample Population

A total of 100 self-assessments were returned for a return rate of 56.18%. Four of the returned assessments were unusable due to being incomplete or improperly completed, and 2 were returned after the deadline had passed and data analysis had begun. Table 5 (Sociodemographics of Sample Population (n = 94)), Table 6 (Age Distribution of Sample Population (n = 93)), and Table 7 (Sociodemographics of Functional Clinicians (n = 58)) demonstrate the sociodemographic distribution of the sample population. Of the 94 (n) usable self-assessments (a response rate of 52.81%), 59 (62.77%) were from males, 35

TABLE 5

SOCIODEMOGRAPHICS OF SAMPLE POPULATION (n = 94) Number of Subjects (Percentage of n)

Rank	Clinicians		Non-clinicians		Status Unknown		Totals
	Male	Female	Male	Female	Male	Female	
Officers, Jr.	4 (4.26)	3 (3.19)	4 (4.26)	1 (1.06)	1 (1.06)	1 (1.06)	14 (14.89)
Officers, Sr.	9 (9.57)	11 (11.70)	0 (0.00)	0 (0.00)	2 (2.13)	3 (3.19)	25 (26.60)
Enlisted, Jr.	11 (11.70)	2 (2.13)	5 (5.32)	0 (0.00)	0 (0.00)	0 (0.00)	18 (19.15)
Enlisted, Sr.	9 (9.57)	1 (1.06)	2 (2.13)	1 (1.06)	2 (2.13)	1 (1.06)	16 (17.02)
DACs, Jr.	1 (1.06)	0 (0.00)	0 (0.00)	2 (2.13)	1 (1.06)	0 (0.00)	4 (4.26)
DACs, Sr.	2 (2.13)	3 (3.19)	1 (1.06)	4 (4.26)	1 (1.06)	1 (1.06)	12 (12.77)
Unknown	1 (1.06)	1 (1.06)	1 (1.06)	0 (0.00)	2 (2.13)	0 (0.00)	5 (5.32)
Subtotals	37 (39.36)	21 (22.34)	13 (13.83)	8 (8.51)	9 (9.57)	6 (6.38)	-
Totals	58 (61.70)		21 (22.34)		15 (15.96)		94 (100.00)

(37.23 %) were from females, 39 (41.49 %) were

from officers, 34 (36.17%) were from enlisted,

16 (17.02%) were from DACs, and 5 (5.32%)

were from respondents of unknown rank. The

respondents ages ranged from 22 to 56 years

with a mean of 39.30 and standard deviation of

7.46. No usable self-assessments were from WS

employees.

TABLE 6
AGE DISTRIBUTION OF SAMPLE POPULATION (n = 94)

Age Group	Number (Percentage of n)
17-24	3 (3.19)
25-35	22 (23.40)
35-44	46 (52.13)
45-54	20 (21.28)
55-64	2 (2.13)
65 +	0 (0.00)
Unknown	1 (1.06)
All Ages	94 (100.00)

Fifty-eight (61.70%) of the usable assessments were from functional clinicians, 21 (22.34%) were from non-clinicians, and 15 (15.97%) were from respondents of unknown clinical background. Of the 58 identified clinicians, 27 stated that the majority (more than 50%) of their duties were clinical in

TABLE 7
SOCIODEMOGRAPHICS OF FUNCTIONAL CLINICIANS (n = 58)
Number of Subjects (Percentage of n)

Rank	Majority of Duties are Clinical		Majority of Duties are Other Than Clinical		Duty Status Unknown		Totals
	Male	Female	Male	Female	Male	Female	
Officers, Jr.	3 (5.17)	2 (3.45)	1 (1.72)	1 (1.72)	0 (0.00)	0 (0.00)	7 (12.07)
Officers, Sr.	5 (8.62)	7 (12.07)	4 (6.90)	4 (6.90)	0 (0.00)	0 (0.00)	20 (34.48)
Enlisted, Jr.	3 (5.17)	1 (1.72)	8 (13.79)	1 (1.72)	0 (0.00)	0 (0.00)	13 (22.41)
Enlisted, Sr.	1 (1.72)	0 (0.00)	6 (10.34)	1 (1.72)	2 (3.45)	0 (0.00)	10 (17.24)
DACs, Jr.	0 (0.00)	0 (0.00)	1 (1.72)	0 (0.00)	0 (0.00)	0 (0.00)	1 (1.72)
DACs, Sr.	2 (3.45)	2 (3.45)	0 (0.00)	1 (1.72)	0 (0.00)	0 (0.00)	5 (8.62)
Unknown	0 (0.00)	1 (1.72)	1 (1.72)	0 (0.00)	0 (0.00)	0 (0.00)	2 (3.45)
Subtotals	14 (24.14)	13 (22.41)	21 (36.21)	8 (13.79)	2 (3.45)	0 (0.00)	-
Totals	27 (46.55)		29 (50.00)		2 (3.45)		58 (100.00)

nature, 29 stated that the majority of their duties were non-clinical (i.e., administrative) in nature, and 2 did not respond.

Table 8 (Highest Level of Education Attained) demonstrates that 82.98% of the sample populations hold a college degree with the majority having earned a bachelor's degree. Three subjects (3.19%) either left the question unanswered or gave a "working on degree" response. The military education for enlisted soldiers demonstrates a relatively normal distribution with the majority of soldiers having been mid-career and having completed ANCOC. The military education distribution for officers is not normal, but a double-peaked distribution with the majority of officers having completed OBC and CGSC.

TABLE 8
HIGHEST LEVEL OF EDUCATION ATTAINED (n = 94)
Number of Subjects (Percentage of n)

Civilian Education

High School/GED	11 (11.70)	Master's Degree	20 (21.28)
Associate's Degree	19 (20.21)	Doctorate/Terminal Degree	11 (11.70)
Bachelor's Degree	28 (29.79)	Other/Unknown	3 (3.19)

Military Education

PLDC	2 (2.13)	WOC/OCS	0 (0.00)
BNCOC	11 (11.70)	OBC	12 (12.77)
ANCOC	23 (24.47)	OAC/CLOAC	8 (8.51)
1SG Course	2 (2.13)	CAS3	4 (4.26)
SMA	1 (1.06)	CGSC	16 (17.02)
Army Management Staff College	0 (0.00)	Unknown or No Military Education	15 (15.96)

Table 9 (Other Sociodemographics of Sample Population (n = 94)) demonstrates other various sociodemographics measured by the self-assessment.

TABLE 9**OTHER SOCIODEMOGRAPHICS OF SAMPLE POPULATION (n = 94)**

Sociodemographic	Range	Mean	Standard Deviation
Estimated Salary	\$15,631 - \$62,460	\$34,631	\$12,292
Years Spent in Present Position	0.08 - 15.00 Years	2.65 Years	3.34 Years
Years of Active Military Service	0.00 - 29.00 Years	12.47 Years	7.23 Years
Years of Civil Service	0.00 - 29.00 Years	2.61 Years	6.62 Years
Years in Supervisory Positions	0.00 - 20.00 Years	7.80 Years	5.52 Years
Largest Number of Personnel Supervised at One Time	0 - 250 Employees	33.52 Employees	43.75 Employees

Sample Population (n) Training Needs by Individual SKA

Table 10 (Mid-level Manager Training Need Level Per Individual SKA)

demonstrates the self-reported training need levels for MACH mid-level managers for each of the 91 SKAs. Need levels were based on the 5 point scale identified in Figure 1 and determined by using the *mode* of all scores: *Very Low Need* level for a mode of 1; *Low Need* level for a mode of 2; *Medial Need* level for a mode of 3; *High Need* level for a mode of 4; and, *Very High Need* level for a mode of 5. The *ranges* of the modes of all scores were equal to 4. Figure 2 (SKA

Frequency by Need Level) displays the *mean* frequency in which SKAs were scored at each level: 18 (19.78%) at *Very Low Need*; 16 (17.58%) at *Low Need*; 31 (34.07%) at *Medial Need*; 10 (10.99%) at *High Need*; and 16 (17.58%) at *Very High Need*.

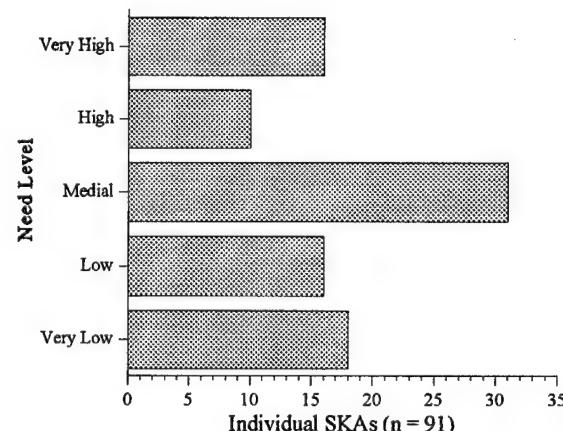
**Figure 2. SKA Frequency by Need Level**

TABLE 10
MID-LEVEL MANAGER TRAINING NEED LEVEL PER INDIVIDUAL SKA

	Very Low	Low	Medial	High	Very High
MACH Organization, Planning, and Readiness					
Organization Structure & Design	Strategic Plan	Developing Unit Plans & Mission Statements	Military Medical Readiness Plans & Issues		
Vision, Mission, and Values Goals and Objectives					
Human Resource Management					
Scheduling & Time Keeping	Staff Development Folder Maintenance	TDA Development & Maintenance	Developing Job Descriptions	Labor Management/Relations	
OER/NCOPER Systems	Counselling	Personnel Assignments & Status Changes	Civilian Awards Program	Grievance Procedures	
Chapter Actions	Developing Performance Standards	External Personnel Resources	Personnel File Maintenance, Civilian	Interviewing & Hiring Actions	
Personnel File Maintenance, Military	Accession & Retention Issues & Actions	Mentoring Program	Disciplinary Actions, Civilian	Disciplinary Actions, Civilian	
	Recognition & Awards Programs	Competency Assessments	Education & Training Opportunities & Requirements		
	Disciplinary Actions, Military Programs		Civilian Performance Appraisals		
			EEO Laws, Regulations, & Issues		
			Promotion Actions		
			Separation Actions		
			Physical Profile Actions		
Communication					
Writing Skills	Speaking & Presentation Skills	Conflict Management	Management & Release of Information	Automation Use	
Running Staff Meetings		Handling Complaints	Capability Request Use & Procedures	Software Use	
Information Management			Development & Monitoring	Telecommunication Use	
System & Telephone Work Orders	Publication & Form Request Procedures	Policy & Procedures			

TABLE 10 (Continued)
MID-LEVEL MANAGER TRAINING NEED LEVEL PER INDIVIDUAL SKA

Sample Population Training Needs by Functional Category and Total Scores

Table 11 (Mid-Level Manager Training Need Level Per Category) identifies the perceived training need levels of MACH mid-level managers for each functional category.

TABLE 11
MID-LEVEL MANAGER TRAINING NEED LEVEL PER CATEGORY

Category (Maximum Possible Score)	Grand Mean (SD)	Percentage	Need Level
Finance & Budget Management (45)	29.87 (9.63)	66.38	High
Information Management (40)	25.04 (8.41)	62.61	High
Health Care Law, Policy, & Ethics (70)	43.16 (14.20)	61.66	High
Human Resource Management (150)	87.05 (27.20)	58.04	Medial
Supply, Equipment, Facility, & Services Management (45)	25.39 (10.35)	56.42	Medial
Quality Management & Safety (50)	28.02 (10.56)	56.04	Medial
Communication (25)	13.86 (5.70)	55.45	Medial
MACH Organization, Planning, & Readiness (30)	12.44 (5.28)	41.47	Medial
Total (455)	195.36 (54.92)	42.93	Medial

Figure 3 (Training Need Level by Total Scores Per Subject) demonstrates the overall training

need level for all subjects based on their total scores. Training need levels were based on the scale identified in Figure 1, and

determined by using percentages of the maximum possible category and total scores and the grand means of cumulative category and total scores: 0 to 20% were rated *Very Low Need* level; 21 to 40% were

rated *Low Need* level; 41 to 60%

were rated *Medial Need* level; 61 to

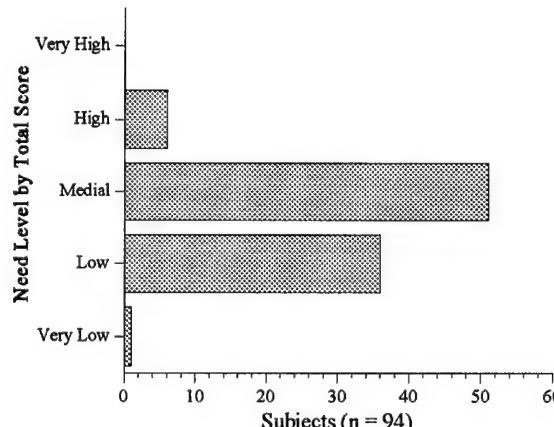


Figure 3. Need Level by Total Score Per Subject

80% were rated *High Need* level; and 81 to 100% were rated *Very High Need* level.

Correlation of Sociodemographics to Training Needs

This study produced over 3,400 correlation coefficients: 3,094 sociodemographic-individual SKA correlations and 306 sociodemographic-SKA category/total score correlations. The findings identified 306 statistically significant correlations of which 278 were individual SKA correlations and 28 were category and total score correlations. All significance levels were for two-tailed comparisons, and all correlations reported were significant at $p < .05$ unless otherwise indicated. The calculated levels of shared variances (r^2) for all reported category and total score relationships ranged from 4% to 12% and demonstrated that an average of 8% of the variance in functional category scores can be accounted for by sociodemographics. See Appendix 2 (Sociodemographic-SKA Relationships) for the statistics on those relationships between sociodemographics and SKA categories/total scores that demonstrate statistically significant correlations.

Age. Being a member of the 17 to 24 year old age group correlated significantly with high scores in the *Human Resource Management*, and *Supply, Equipment, Facility, & Services Management* categories, and in *Total*. Being a member of the 25 to 34 year old age group correlated significantly with high scores in the *Finance & Budget Management* category. Being a member of the 55 to 64 year old age group correlated significantly with high scores in the *Information Management* category. Greater age correlated significantly with lower scores in the *Human Resource Management* category and in *Total*. Overall, the older the subjects were, the lower their scores tended to be, signifying a lower perceived need for training in the related areas.

Gender. Being a male correlated significantly with higher scores in the *MACH Organization, Planning, & Readiness, and Human Resource Management* categories. Males tended to have higher scores, signifying a higher perceived need for training in the two categories identified.

Rank. Being a senior enlisted soldier correlated significantly with higher scores in *Quality Management & Safety*, signifying a need for training category. No other rank group demonstrated a statistically significant correlation with any other SKA category.

Estimated Salary. Having a greater estimated salary correlated significantly with lower scores in the *MACH Organization, Planning, & Readiness, Finance and Budget Management, and Health Care, Law, Policy, and Ethics* categories, and in *Total*. The higher a subjects estimated salary tended to be, the lower a subjects score tended to be, signifying a low need for training in these categories.

Functional Status. No statistically significant correlations were identified between functional clinical status and scores in any category. Whether one is a formally trained clinician or a non-clinician had no statistically significant bearing on the outcome of the survey.

Duty Status. Statistically significant correlations ($p < 0.01$) were demonstrated with being a clinician, whose majority of duties were clinical (duty status), and high scores in *Information Management, Finance & Budget Management, Supply, Equipment, Facility & Services Management* categories, and in *Total*. Additionally, this group of clinicians demonstrated a very high statistically significant correlation ($p < 0.001$) with high scores in the *Human Resource Management*, category. Those manager-clinicians

whose duties were primarily clinical in nature tended to have high scores, signifying a high need for training in the categories identified.

Years in Present Position. A statistically significant negative correlation was demonstrated with the number of years subjects had spent in his or her current position and scores in the *Human Resource Management*, and *Finance & Budget Management* categories, and in *Total*. The longer one had spent in their current supervisory position, the lower one tended to score, signifying a low perceived need for training in these categories.

Years of Active Military Service. A statistically significant negative correlation was demonstrated with the number of years in which subjects spent on active military service and scores in the *Supply, Equipment, Facility & Services Management* category. The more time subjects had spent on active military service, the lower their scores tended to be, signifying a low self reported need for training this category. In no other instance did years of active military service significantly correlate with any other category.

Years of Civil Service. No statistically significant correlations were identified between the number years in which subjects spent in civil service and scores in any functional category.

Years in Supervisory Positions. A statistically significant negative correlation was demonstrated with the number of years that subjects spent occupying supervisory positions and scores in the *Human Resource Management*, *Finance & Budget Management*, and *Supply, Equipment, Facility & Services Management* categories, and in *Total*. The more time one had spent in supervisory positions, the lower ones scores

tended to be, signifying a low perceived need for training in these categories.

Largest Number of Personnel Supervised at One Time. A statistically significant negative correlation was demonstrated with the number of personnel subjects supervised at one time and scores in the *MACH Organization, Planning, & Readiness, Human Resource Management, Communication, Information Management, Finance & Budget Management, and Supply, Equipment, Facility & Services Management* categories, and in *Total*. The larger the number of personnel one had supervised at one time in the past, the lower one tended to score, signifying a low perceived need for training in these categories.

Formal Civilian and Military Education. A statistically significant positive correlation was demonstrated between *MACH Organization, Planning, & Readiness* category scores and those subjects holding an associate's as their highest degree. A statistically significant negative correlation was demonstrated between *Supply, Equipment, & Facility and Services Management* category scores and those subjects holding a master's as their highest degree. Those subjects having attained an associate's degree tended to have high scores in the *MACH Organization, Planning, & Readiness* category, signifying a need for training. Those subjects having attained a master's degree tended to have low scores in the *Supply, Equipment, & Facility and Services Management* category, signifying a low need for training. Significant correlations were demonstrated between: subjects having completed ANCOC as the highest military school attended and high *Quality Management & Safety* category scores; subjects having completed the 1SG Course as the highest military school attended and high *MACH Organization, Planning, & Readiness* category scores; and, subjects having completed OBC as the highest military

school attended and high *Human Resource Management* category scores. Those subjects having ANCOC, 1SG Course, and OBC as the highest completed, tended to have higher scores, signifying a greater need for training in the categories identified. In no other instance did either formal civilian education or military education demonstrate significant correlation with any functional category.

Although, numerous sociodemographic-SKA relationships were demonstrated to be statistically significant, the null hypothesis can not be empirically rejected. The small number of significant correlations, and the large amount of unaccounted for variance (88 to 100%) in all correlations, strongly suggest that there is no systematic relationship between SKA training needs, as identified by assessment scores, and the sociodemographic factors utilized in this study. The possibility of a systematic relationship is further complicated by the fact that the actual number of correlations that are truly significant can not be readily distinguished from those that appear significant yet are actually attributable to random variation.

CHAPTER 4

DISCUSSION

This study sought to: develop criteria delineating a MACH mid-level manager; identify basic SKAs required by MACH mid-level managers; evaluate, through self-assessment, the level of need for training in those SKAs of a sample of the total population of mid-level managers at MACH; and, through statistical analyses, identify possible correlations between various sample population sociodemographics and the demonstrated levels of training within each functional category. The results of previous studies - which have primarily studied either leadership qualities or specific categories or groups of managers (i.e., nurses, executive level managers, MTF Commanders and Deputy Commanders for Administration) - are of limited usefulness when studying mid-level managers at a specific military hospital. However, numerous previous studies, such as those by Crawford, Roberts, and Orloff (1993), Hudak, Brook, and Finstuen (1994), Hudak et. al. (1993), and Richie et al. (1979), did provide a foundation upon which to develop defining criteria of a MACH mid-level manager, build a list of required mid-level manager SKAs, identify possible significant sociodemographic-SKA relationships, and indicate the form, direction, and magnitude the results of this study may have taken.

Individual SKA, Functional Category, and Total Training Needs

This study demonstrated that the levels of perceived need for training in individual SKAs were highly variable among mid-level managers, as well as from SKA to SKA, and that need levels demonstrated for related SKAs (i.e., civilian and military personnel management functions), between and within SKA categories, were not similar. These findings suggest that inadequacies and discrepancies exist in the consistency and comprehensiveness of the management training and experience which MACH mid-level managers receive in the SKAs identified.

This study's results from evaluating training need levels for each functional category, suggests that MACH mid-level managers have a Medial to High Need for training in all eight categories (a High Need for training in the three categories of *Finance & Budget Management, Information Management, and Health Care Law, Policy & Ethics*, and a Medial Need for training in the remaining five categories) and that the majority of mid-level managers perceive that their knowledge in all categories is lacking. Although, *Human Resource Management* was identified as a Medial Need overall, it contained 30.00% of all individual SKAs listed at the High Need level and 26.67% of all individual SKAs listed at the Very High Need level, and should be considered in the same light as those categories having scored at the High Need level. Overall, results suggest that current management development and training policies and programs are neither able to adequately support training requirements nor keep pace with the continuously expanding SKAs requirements of MACH mid-level managers. Furthermore, these findings suggest that mid-level managers are failing to: understand and apply financial

management methodology; understand and utilize current information management systems and technology; remain current with the ever changing laws, policies, and ethics of the military health care environment; and effectively manage labor relations and civilian human resources.

The results of this study further suggest that within *Human Resource Management* and the three functional categories identified at the High Need level, major discrepancies exist between required and actual competency and proficiency of specific individual SKAs. First, this study demonstrated a strong perceived need for training in the management of finances and budgets and related processes, specifically in cost-finance, budgeting, contracting, material and service management, and in third party collections, suggesting a systemic problem with training in these functions. Although, the majority of these SKAs were traditionally managed by subject matter specialist or department, division, and service NCOICs in the past, today's mid-level managers are finding themselves being held responsible for these functions. Furthermore, these findings suggest that MACH mid-level managers appear to be aware that they must become fully competent in these SKAs in order to be effective and successful as managers in MTFs.

Second, findings identified a strongly perceived need by mid-level managers for training in information management SKAs, specifically with automation, software, and telecommunications understanding and use. Additionally, a need for training in the appropriate manner and methodology for acquisition and maintenance of automation, communication, and information management systems was also perceived. Although, personal computers have been routinely used in MTFs for more almost two decades, only

designated hospital personnel were required to acquire and use automation equipment and software, and computer specialists typically coordinated for and provide the majority of maintenance functions. Today, due to the increase in accessibility to these assets and their user friendliness, coupled with the U.S. Armed Forces ongoing personnel right-sizing, mid-level managers must be able to personally perform information management functions if they are to successfully accomplish their duties. The findings suggest that mid-level managers have not yet acquired the ability and experience required to successfully perform current, everyday activities utilizing computer and communications assets. Furthermore, mid-level managers demonstrated a strong perceive need for training in the actual management and release of information, suggesting either a lack of confidence in making appropriate decisions regarding information management or a lack of familiarity with the current applicable laws, policies, and regulations as they apply to the maintenance of sensitive or confidential information.

Third, this study demonstrated that MACH mid-level managers perceived a definite need for training in *Health Care, Laws, Policies, and Ethics* SKAs, especially those affecting beneficiary issues, medical liability, Government involvement with health care, benefits programs (i.e., Concordia Dental, CHAMPUS, and TRICARE Program), and payment policies. With the continuous Federal and State legislative changes being made to health care related laws and ongoing DoD and Army policy changes, it was not unexpected for mid-level managers to perceive a Very High Need for training in the CHAMPUS and TRICARE Program, and a Medial Need for training in the current military dental program. However, it was unexpected for mid-level managers to perceive

a Very Low need for training in the SKAs *Confidentiality, Informed Consent, Advance Directives, and Handbook and Bill of Rights*. These results may be a manifestation of mid-level managers' misunderstanding of their own true need for training and an under-realization of the importance of these SKAs. Informal evaluations of this situation conducted by various MACH staff in preparation for a JCAHO survey, revealed that personnel are neither handling situations involving confidentiality/privacy, informed consent, and advance directives in a consistent manner nor routinely distributing MACH's handbook of patient rights.

Fourth, all but one of the *Human Resource Management* SKAs perceived as High and Very High Need levels by MACH mid-level managers were related to the managing of civilian employees, specifically those dealing with civilians having, involved with, or creating management problems. These results suggest an inadequacy in either the training and experience necessary to manage civilians, or in the confidence of mid-level managers to deal with issues concerning civilian employees. Conversely, the majority of those SKAs dealing with managing military personnel were perceived at Low and Very Low Need levels. This suggests that managers are receiving adequate training and experience in these SKAs and that they feel confident they can successfully handle the majority of issues pertaining to military personnel. Overall, these findings, coupled with the fact that the larger portion of the sample population was military, suggest that military personnel in particular perceive a strong need for training in civilian personnel management SKAs. Relative to and consistent with the implication that mid-level managers perceive a strong need for training in the management of personnel issues and problems, findings also

suggest that mid-level managers do not feel confident in their ability to deal with managing interpersonal conflicts and in handling complaints.

Lastly, other important findings of lesser significance suggest that mid-level managers perceive the need for training in military medical readiness, safety standards and accident reporting, equipment procurement and contracting processes, and supply, services, and credit card acquisitions and processes. Each of these SKAs, with the exception of safety issues, were primarily the purview of a select few (i.e., subject matter experts, senior managers, executive managers), and have only recently become the concern and direct responsibilities of mid-level managers in MTFs - all levels of management are now directly involved with each of these issues. This current emphasis on these SKAs is due in part to personnel right-sizing and recent paradigm shifts in military and MTF views on mission and roles at all levels. The perceived need in these areas may be an indication that mid-level managers acknowledge these responsibilities and are aware of and concerned about their lack of knowledge and experience.

These findings are consistent with the results of previous studies. Table 14 (Management Skill Areas With Gaps) demonstrates results of the study by Crawford,

TABLE 14

**MANAGEMENT SKILL AREAS
WITH GAPS**
In Order of Magnitude of Perceived Gap

Information Management
Strategic Planning
Labor/Management Relations
Quality Management
Productivity Management
Alternative Health Care Systems
Financial Management
Quantitative Analysis
Conflict Management
Materials Management
Facilities Management
Personnel Management
Decision Making
Management of Change
Legal Issues
Organization Design
Communications
Individual Behavior
Group Dynamics
Systems Perspective
Ethics

Roberts, and Orloff (1993) in which military health care executives perceived large *gaps* between knowledge and need in specific *management skill area's* or SKAs. Hudak, Brook, and Finstuen (1994) and Hudak et al. (1993) noted in their research that military health care executives must maintain a high level of competency in the SKA domains of cost-finance, ethics, and information management, and that these are SKAs that military healthcare executives have demonstrated a lack of experience and competency. Crawford, Roberts, and Orloff (1993), and Hudak, Brook, and Finstuen (1994) demonstrated that many health care executives perceive conflict management, communications, financial management, personnel management, and communication SKAs as high priority requirements for health care executives. Additionally, Crawford, Roberts, and Orloff (1993), and Hudak, Brook, and Finstuen (1994) specifically suggested that military healthcare executives and managers acquire "enhanced understanding of the technical aspects" (Hudak, Brook, and Finstuen 1994, 499) of managed care, contracting, and information systems, and increase their competency in interpersonal skills such as communication and conflict management.

Correlation of Sociodemographics to Training Needs

Significant correlations existed within sociodemographic-SKA relationships (individual and functional category), but this study demonstrated that sociodemographics are not sound predictors of the level of need for training in the SKAs. These findings are consistent with previous research, such as that by McLeod (1979). However, the same correlations did identify specific individual SKAs in which selected sociodemographic

groups needed training as well as the perceived magnitude or level of need for training in those SKAs.

New or young mid-level managers do not appear to demonstrate the full range of competencies necessary to be successful - specifically in *Human Resource Management* and *Supply, Equipment, Facility, and Services Management* SKAs - but over time and through on-the-job training they appear to gain the requisite skills, knowledge, abilities, and experience required. Although the premise of these findings is simple (i.e., that younger managers have less training and experience), the implications manifest in such a manner as to suggest that mid-level managers are neither being adequately trained upon being selected for management positions, nor getting adequate, ongoing or periodic training and experience in the SKAs identified. Mid-career mid-level managers demonstrated specific needs in cost-finance and budgeting SKAs. Furthermore, older and senior mid-level managers appear to lack the proper understanding and training in the more recently introduced SKAs, such as those in the *Information Management* SKA category. These findings further support the opinion that managers are not acquiring ongoing training in various SKAs, specifically those that may have been recently added or considered new to a manager's list of required competencies.

Male mid-level managers appear to demonstrate a higher need for training than female mid-level managers in organization, planning, and readiness, and personnel management SKAs. It has been suggested that women have a different approach to interpersonal relations and functions than men and that this approach may be more conducive to the effective understanding of human resource management (Walsh and

Borkowski 1992 and 1995). Although these findings were not statistically significant and no empirical reason for these results was ascertained by this study, sample population females demonstrated lower scores overall than did males, suggesting that MACH's female mid-level managers may have acquired more comprehensive training and experience in the majority of SKAs. It has been suggested through informal interviews with MACH personnel and by Walsh and Borkowski (1992 and 1995) that women may tend to overcompensate for the *glass ceiling* effect, as well as the fewer management development opportunities available to them, by actively pursuing additional training and experiences. However, it must be stated that differences in scores by gender are largely insignificant in both statistical and practical terms.

Although rank did not appear to have any substantial bearing on this study's results, senior enlisted personnel or NCOs demonstrated a strong perceived need for training in safety and quality management. No empirical reason for this outcome was ascertained, but it was suggested by various MACH enlisted personnel that this may be due to a misunderstanding of one's own true needs. Junior enlisted soldiers have very little direct exposure to and responsibility for safety and quality issues outside of their job-specific competencies and therefore may not perceive a need for these SKAs. Conversely, senior enlisted soldiers know they have a responsibility for safety and quality, but do not feel they have adequate training and experience to successfully deal with safety and quality issues. The fact that rank demonstrated little impact on this study's results suggests that management training and experience is consistent across all ranks for all mid-level managers at MACH regardless of actual quality and comprehensiveness of that training.

MACH's manager-clinicians, the majority of whose duties are clinical, have the highest need for training in the identified SKAs, particularly in the human resource management SKAs, than any other sociodemographic group. These findings are consistent with the results of other studies, such as those by Smith, Ross, and Smith (1980), Richardson and Sherwood (1983), Paradis et al. (1988), and Rowland and Rowland (1993), in which clinicians in management positions demonstrated a lack of many basic competencies necessary to be effective managers and who are identified as prime candidates for management development and training programs. The findings from these studies and commentary from informal interviews with MACH clinicians suggest that clinicians either do not have the time available to attend training and acquire experience in administrative and management functions, or they simply choose not to pursue training in non-clinical areas.

The level of formal civilian and military education acquired by subjects appears to have had very little statistically significant impact on the overall results of this study. These findings suggest that the majority of necessary mid-level management SKAs are not typically acquired through either of the two forms of education as outlined in this study. Texidor, Lamar, and Roberts (1996) supports this premise by suggesting that the majority of formal management training is provided through non-clinical graduate and post-graduate education, such as that provided by the Naval Postgraduate School's (Monterey, CA) Executive Management Education Program for military health care managers.

Interestingly, the statistically significant negative correlations demonstrated between SKAs and the sociodemographics of estimated salary, number of personnel

supervised at one time, and number of years in present position, on active duty, and in supervisory positions, suggest strong and direct interrelationships between each of these sociodemographics. All of these sociodemographics relate to the quantity and magnitude of management experience, and the statistically significant negative correlations or relationships identified supports the premise that efficiency, effectiveness, and overall competency are gained through exposure to management processes over time - specifically, the ability to manage personnel, finances and budgets, information (*less* automated systems), and materials and services. As stated earlier, younger, newer mid-level managers tend to perceive a greater need for training in the SKAs identified, while older, senior mid-level managers feel that their knowledge in the same SKAs identified is adequate.

Weaknesses of the Study

A weakness of this study was that the total population was severely limited in number, and that the sample population was small and not strongly homogeneous. The small number of subjects in the sample population, especially within certain sociodemographic groups, weakened the validity of some of the study's analyses and outcomes, to include limiting the power of related sociodemographic-SKA comparisons.

Another weakness of this study was that the study's results were highly dependant on the honesty of the sample population regarding their true needs (i.e., self-reported bias). Individual attitudes, personalities, and perceptions of one's need for further training in the individual SKAs and SKA categories are sure to have had an impact on the

responses given. Regardless, either the study's results are an accurate reflection of MACH's mid-level manager populations need for training or they are not. If they are then this study has accomplished it's purpose. If they are not, then the outcomes are a result of the mid-level managers' poor understanding of their own needs for training in the 91 SKAs. Either way, the need for training still exists. These statements are predicated on two assumptions: first, all 91 SKAs have been ascertained as being required competencies necessary for all MACH mid-level managers; and, second, previous studies suggest that needs are often unrecognized or inflated.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Individual SKA and functional category training needs for the sample population were identified and, although not systemically predictive, statistically significant correlations in sociodemographic-SKA relationships demonstrated that various sociodemographic factors were predictive of certain management training needs. Based on this study, the perceived primary training needs for MACH mid-level managers at the time the self-assessment was administered were: to understand and perform cost-finance and budget management functions; to understand and effectively use computer and communications assets, and information management systems; to understand current laws, regulations, and policies effecting health care, especially dealing with CHAMPUS and the TRICARE Program; and to effectively perform civilian personnel management functions.

This study's findings strongly suggest that all mid-level managers need some training in all SKA categories, but that several specific sociodemographic groups have very distinct training needs: mid-level manager-clinicians need specific and intense training in human resource management, information management, finance and budget management, and material and service management functions; senior mid-level managers need training in automation skills; and the younger and newer or more junior mid-level managers need a basic introduction to and training in all SKAs.

The findings of this study suggest that there is a definite need to reengineer MACH's current management development processes and training programs if mid-level managers are to be effective and successful, and health care quality is to be improved. The current system is not adequate for the task of effectively developing mid-level managers and must be redesigned. Recommendations for this reengineering include:

- Executive level management must demonstrate strong support for a management development and training program by developing and enforcing appropriate policies.
- Implement a strong mentoring program for junior mid-level managers in order to coordinate needed training, ensure attendance at needed training, provide experience in a controlled manner, and ensure the provision of appropriate interpretation and explanation of those experiences. The mentor should be a senior manager with demonstrated proficiency in the 91 SKAs, and of the same profession and career track as the junior manager. Furthermore, in order to ensure a more academic relationship and decrease the possibility of manager-employee conflict, it would be preferable not to have a junior manager's mentor in his or her direct chain of supervision.
- Develop a self-assessment instrument based on the identified SKAs that would be administered to new or incoming mid-level managers. The instrument would be utilized to ascertain managers' individually perceived training needs, and collect statistical data for further analysis of MACH's overall management training needs.
- Utilize the list of 91 individual SKAs and eight functional categories to formulate basic course criteria for a management development and training program. Management development *modules* should be developed based around functional categories and composed of independent training classes for individual or groups of related SKAs. Classes should be available to be taken in any sequence within a particular module.
- Utilize this study's and subsequent self-assessment findings to identify those SKAs and categories in which concentrated needs exist by sociodemographic group and in total. Identified concentrations should be designated for priority training and incorporated into mandatory management development and training modules or individual classes as needed.
- Ensure effective management development by making selected individual SKA and

functional category training classes and modules mandatory for designated MACH mid-level managers, such as *Human Resource Management* SKAs for manager-clinicians and *Information Management* SKAs for senior mid-level managers. Training programs should be tailored to individual manager needs, but should incorporate mandatory classes and modules as well.

- Develop a committee to meet at least annually and review SKA requirements and assess MACH's dynamic training needs. The committee should consist of MACH'S deputy commanders and the Chief, Department of Education and Training, at a minimum. The committee's objective would be to ensure that the management development and training program: is consistent with MACH's mission, vision, and values; parallels MACH's goals and objectives; and, is based on criteria and required SKAs consistent with current concepts and principles of health care management. The committees two-fold goal would be to ensure that effective managers are developed and, through this development, to improve the quality of the health care services provided to MACH's beneficiaries.

Additional research is recommended to evaluate MACH's first-line supervisors and executive management personnel in order to: ascertain SKAs necessary at each level of management; identify training needs of management personnel at each level; and provide data for the development of a fully integrated management development and training program that would provide a continuity of management education for all levels of management as well as possible management candidates. Further research should be conducted to compare training need self-assessment results (such as with this study's results) with results from other training need assessment methods, such as from a test that evaluates SKA specific competencies. Two purposes of this research would be to, first, validate this study's assessment instrument and, second, to acquire additional data on training needs of specific competencies. Lastly, additional research should be conducted to further evaluate and compare the training needs of civilian and military personnel in the three identified High Need categories and human resource management, particularly

civilian and military personnel management SKAs.

The clinical implications of this study are simple and obvious: the development and maintenance of effective, efficient, and competent mid-level managers in the 91 SKAs will enhance the improvement of the quality of the health care services provided by MACH.

The results and findings of this study were to have a three-fold objective, but one ultimate goal. First, the scores acquired from the assessments were used to identify MACH mid-level manager training needs per functional category and individual SKA. Second, the results of the comparison of sociodemographic data with the survey data were used to demonstrate statistically significant correlations between sociodemographic groups and SKA training needs. Third, the study's results were to be used to make recommendations for the development of a mid-level management development and training and development program. Lastly, the ultimate goal is to improve the quality of the services that MACH provides to its beneficiaries by increasing the efficiency and effectiveness of mid-level managers at MACH through the implementation of a strong management development and training program utilizing the results and findings of this study.

APPENDIX 1
ASSESSMENT INSTRUMENT

**Memorandum of Introduction, Instruction Memorandum, and
Mid-level Management Training Needs Self-Assessment**

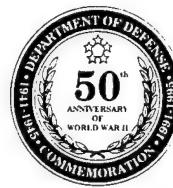


REPLY TO
ATTENTION OF

Headquarters

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MEDICAL DEPARTMENT ACTIVITY
FORT JACKSON, SOUTH CAROLINA 29207-5720

November 27, 1995



Dear Manager,

There is an increased concern that many middle managers at Moncrief Army Community Hospital (MACH) may not have been fully exposed to all the requisite skills, knowledge, and abilities (SKAs) necessary to perform managerial duties as efficiently and effectively as would be expected. I am a U.S. Army - Baylor University Graduate Program in Health Care Administration resident at this facility and am conducting an assessment of the perceived needs of middle managers for further training and experience in managerial SKAs.

The information gained from this assessment will be used in the development of course criteria and content for a manager training program. Participation by the majority of middle managers at MACH is important to ensure accurate results.

The assessment instrument will be distributed on December 1, 1995. Please take a few minutes and complete the assessment, and return it to my office by December 15, 1995. You are assured of complete anonymity because no names will be used on the assessment and no attempts will be made to identify any participant. Your complete honesty and sincerity will be greatly appreciated.

Definitions and instructions will be included with the assessment to assist you with its proper completion. If you have any questions about the assessment, please feel free to call me at (803) 751-2648.

Thank you for your assistance.

Sincerely,

Todd J. Briere
Captain, U.S. Army
Administrative Resident



REPLY TO
ATTENTION OF

Headquarters

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MEDICAL DEPARTMENT ACTIVITY
FORT JACKSON, SOUTH CAROLINA 29207-5720



December 1, 1995

Dear Manager,

As mentioned in the memorandum dated November 27, 1995, there is an increased concern that many middle managers at Moncrief Army Community Hospital (MACH) may not have been fully exposed to the requisite skills, knowledge, and abilities (SKAs) necessary to perform managerial duties as efficiently and effectively as would be expected. In order to compensate for this concern, the Hospital Command has directed that a management development program be instituted at this facility. The enclosed *Mid-level Management Training Needs Self-assessment* is a tool that will identify those management SKAs in which individual mid-level managers perceive they need additional training and experience. Your complete honesty and sincerity in identifying your management training needs will be greatly appreciated.

Please take a few minutes and complete the enclosed assessment, and return it to my office by **December 15, 1995** using the hospital distribution system. Use the same Optional Form 65-B (*shotgun* envelope) in which this document arrived and the enclosed return address label. Obscure your name on the envelope and/or place the new label over the old.

Although the last four digits of your Social Security Number will be requested, you are assured of complete anonymity. No names are to be placed on the assessment, and no attempts will be made to identify any participant.

Definitions and instructions are included with this memorandum to assist you with its proper completion. If you have any questions about the assessment please feel free to call me at (803) 751-2648.

Thank you for your assistance.

Sincerely,

Todd J. Briere
Captain, U.S. Army
Administrative Resident

Enclosure

MID-LEVEL MANAGEMENT TRAINING NEEDS SELF-ASSESSMENT Definitions

NOTE

Many of the definitions used in the assessment have been developed specifically for this study and will not conform to traditional Federal, military, civilian, or health care industry standards.

Training is the act or process of acquiring and becoming proficient in skills, knowledge, and abilities through experience, instruction, and practice.

Skills are task related competencies.

Knowledge is acquaintance with facts, truths, or principles through active learning.

Abilities are traits, innate or learned, that permits a person to do something mental or physical.

A **manager** is defined as an individual, regardless of rank, WS/GS level, or clinical status, formally given the operational responsibility for an organizational element within Moncief Army Community Hospital (MACH), to include the control and manipulation of resources (i.e., personnel, equipment, supplies) and expenditures (i.e., finances, budget processes), and who is accountable for the work results of that element and its personnel.

A **mid-level manager** at MACH is defined as having the following criteria:

- Formally appointed to a position of authority per MACHs Table of Distributions and Allowances (TDA) document, or command or division/department directive.
- A Department of the Army civilian (DAC), designated as a supervisor per WS and GS classification systems.
- A DAC, GS-5 through -14 or WS; an NCO, E-5 through -8; or an officer, WO-1 through O-6.
- Supervises and *rates* (monitors and, formally or informally, evaluates performance) one or more personnel at MACH.
- Organizes, plans, and schedules work.
- Maintains or is responsible for a budget.
- Controls or coordinates resources.
- Is *not* the Medical Company Commander, Medical Company First Sergeant, Medical Holding Company First Sergeant, a MACH executive level manager, or Veterinary Service and Dental Activity personnel.

Executive level managers at MACH are the Commander, the Deputy Commanders and the Command Sergeant Major.

Staff or non-management/supervisory personnel are those individuals not recognized as having formal supervisory or managerial responsibilities, regardless of rank, WS/GS level, or clinical status.

**MID-LEVEL MANAGEMENT
TRAINING NEEDS SELF-ASSESSMENT
Demographic Questionnaire**

Last Four Digits of Social Security Number (SSN): _____

Age: _____

Gender: Male Female

Active Duty Military: GS Employee: WS Employee: Contract Employee:

Rank/GS/WS Level: _____

Current MOS/AOC/GS/WS Job Series: _____

Majority (more than 50%) of current duties are: Clinical Non-clinical

Years in Present Position: _____

Years of Active Military Service: _____

Years of Civil Service: _____

Years in Supervisory/Management Positions (Include military leadership): _____

Largest Number of Personnel Supervised At Any One Time: _____

Highest Level of Formal Education Completed (Check only one):

High School/GED
Associates
Bachelors

Masters
Doctorate
Other: _____

Military Education Completed (Check all that apply):

PLDC
BNCOC
ANCOC
1SG Course
SMA

WOC/OCS
OBC
OAC/CLOAC
CAS³
CGSC

Army Management Staff College

Other Management Training (i.e., seminars, conferences, correspondence courses):

**MID-LEVEL MANAGEMENT
TRAINING NEEDS SELF-ASSESSMENT
Skills, Knowledge, and Abilities Survey**

INSTRUCTIONS

For each Skill, Knowledge, and Ability, identify your perceived level of need for additional training and experience by marking the appropriate block. The number 1 on the scale representing your lowest or LEAST need for additional training and 5 representing your highest or GREATEST need for additional training.

Last Four Digits of SSN: _____

Skills, Knowledge, and Abilities	Least	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Greatest
MACH ORGANIZATION, PLANNING, & READINESS							
Organization Structure & Design	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Vision, Mission, & Values	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Goals & Objectives	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Strategic Plan	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Military Medical Readiness Plans & Issues (PROFIS, EPP, NDMS)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Developing Unit Plans & Mission Statements	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
HUMAN RESOURCE MANAGEMENT							
Staffing & Manning							
TDA Development & Maintenance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Developing Job Descriptions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Personnel Assignments & Status Changes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Scheduling & Time Keeping	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
External Personnel Resources (USAR, WAE, Red Cross)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Subordinate/Staff Development							
Mentoring Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Competency Assessments	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Education & Training Opportunities & Requirements	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Staff Development Folder Maintenance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Subordinate/Staff Performance & Evaluation							
Rating Scheme Development & Maintenance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Counselling	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Developing Performance Standards	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
OER/NCOER Systems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Civilian Performance Appraisals (TAPES)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Adverse Evaluations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		

Continue On Next Page

Skills, Knowledge, and Abilities	Least	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Greatest
Civilian Personnel Issues							
Labor Management/Relations (MER, Union)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
EEO Laws, Regulations, & Issues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Grievance Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Civilian Awards Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Interviewing & Hiring Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Promotion Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Separation Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Personnel File Maintenance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Disciplinary Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Military Personnel Issues							
Accession & Retention Issues & Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Physical Profile Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Recognition & Award Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Disciplinary Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Chapter Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Personnel File Maintenance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
COMMUNICATION							
Conflict Management	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Handling Complaints	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Writing Skills (Memorandums, reports, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Speaking & Presentation Skills	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Running Staff Meetings	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
INFORMATION MANAGEMENT							
Automation Use (Computer, Mouse, Scanner)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Software Use (Word/Data Processing, Graphics)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Telecommunication Use (FAX, VTC, E-mail)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
System & Telephone Work Orders	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Management & Release of Information (MARKS, FOIA, Privacy Act)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Capability Request (CAPR) Use & Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Publication & Form Request Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Policy & Procedures Development & Monitoring	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
FINANCE & BUDGET MANAGEMENT							
Capitation & Funding Methodology	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Financial Management of Supplies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Local Financial Management Guidance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
PBAC Processes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Budget Development & Monitoring	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Cost Containment & Control	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
TDY & Training Request & Approval	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Credit Card Acquisition & Use (AmExp, VISA)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Third Party Collection Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		

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Skills, Knowledge, and Abilities	Least	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	Greatest
SUPPLY, EQUIPMENT, FACILITY & SERVICES MANAGEMENT							
Supply & Services Requesting Processes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Procurement Methods (Credit Cards, BPA) & Contracting Thresholds	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Work Order Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Reconciliation Requirements (Supplies & Service)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Receiving & Acceptance Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Capital Equipment Requesting Procedures (CEEP, MEDCASE)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Property Accountability Requirements/Thresholds (Hand Receipt Issues)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Key Control	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Source/Item Identification Process/Procedures	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
QUALITY MANAGEMENT & SAFETY							
External Accreditation							
JCAHO Standards & Survey Process	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
OSHA Requirements/Standards	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Accident/Incident Reporting & Management	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Risk Management	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Utilization Management	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Infection Control Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Quality Management Programs (TQM, CQI)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Customer Service Issues & Actions	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Safety Programs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Fire Prevention & Protection	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
HEALTH CARE, LAW, POLICY, & ETHICS							
Government Involvement & Its Impact on Health Services	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Public Law (State & National)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
National, DoD, & Army Health Care Policies	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Eligible Beneficiaries	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Limitations of Medical Benefits	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Medical Liability Issues	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Army Health Care Regulations	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Patient Rights & Responsibilities							
Confidentiality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Informed Consent	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Advance Directives	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Handbook & Bill of Rights	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
TriCare Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
CHAMPUS	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		
Delta/United Concordia Dental Program	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5		

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MID-LEVEL MANAGEMENT TRAINING NEEDS SELF-ASSESSMENT

Comments

Please place any comments, questions, concerns, or recommendations that you may have concerning any part or all of this assessment on this page.

APPENDIX 2
SOCIODEMOGRAPHIC-SKA RELATIONSHIPS

SOCIODEMOGRAPHIC-SKA RELATIONSHIPS
Calculated by t-Test and ANOVA
Unless otherwise indicated, $p < .05$

Sociodemographic to SKA Relationship (n)	df	r	r ²	t	F
Age					
17-24					
Human Resource Management (3)	92	0.24	0.06	2.34	5.46
Supply, Equipment, Facility, & Services Management (3)	91	0.22	0.05	2.13	4.53
Total (3)	92	0.24	0.06	2.41	5.81
25-34					
Finance & Budget Management (22)	92	0.24	0.06	2.41	5.79
55-64					
Information Management (2)	92	0.21	0.05	2.09	4.36
Gender (Male)					
MACH Organization, Planning, & Readiness (59)	91	0.23	0.05	2.26	5.12
Human Resource Management (59)	92	0.24	0.05	2.08	4.34
Rank					
Senior Enlisted					
Quality Management & Safety (15)	91	0.22	0.05	2.11	4.46
Duty Status (Majority of Duties are Clinical)					
Human Resource Management (27)**	54	0.35	0.12	2.77	7.65
Information Management (27)*	54	0.31	0.10	2.42	5.85
Finance & Budget Management (27)*	54	0.27	0.07	2.04	4.16
Supply, Equipment, Facility & Services Management (27)*	53	0.31	0.10	2.39	5.69
Total (27)*	54	0.31	0.10	2.39	5.72
Formal Civilian Education					
Associate's Degree					
MACH Organization, Planning, & Readiness (19)*	91	0.33	0.11	3.32	11.00
Master's Degree					
Supply, Equipment, Facility, & Services Management (20)	91	-0.23	0.05	-2.29	5.23
Military Education					
ANCOC					
Quality Management & Safety (22)	91	0.23	0.06	2.31	5.32
ISG Course					
MACH Organization, Planning, & Readiness (2)	91	0.21	0.05	2.09	4.35
OBC					
Human Resource Management (12)	92	0.20	0.04	2.00	4.00

* $p < 0.01$ ** $p < 0.001$

SOCIODEMOGRAPHIC-SKA RELATIONSHIPS
Calculated by Simple Regression
Unless otherwise indicated, $p < .05$

Sociodemographic to SKA Relationship (n)	df_{RES}	df_{REG}	r	r^2	t	F
Age						
<i>All Ages</i>						
Human Resource Management (93)	1, 91	- 0.25	0.06	- 2.41	5.81	
Total (93)	1, 91	- 0.24	0.06	- 2.31	5.34	
Estimated Salary						
MACH Organization, Planning, & Readiness (92)	1, 90	- 0.22	0.05	- 2.18	4.77	
Finance and Budget Management (93)	1, 91	- 0.23	0.05	- 2.30	5.29	
Health Care, Law, Policy, and Ethics (93)	1, 91	- 0.21	0.04	- 2.03	4.11	
Total (93)	1, 91	- 0.22	0.05	- 2.12	4.51	
Years in Present Position						
Human Resource Management (94)	1, 92	- 0.25	0.06	- 2.50	6.24	
Finance & Budget Management (94)	1, 92	- 0.21	0.04	- 2.03	4.10	
Total (94)	1, 92	- 0.23	0.05	- 2.26	5.10	
Years of Active Military Service						
Supply, Equipment, Facility & Services Management (93)	1, 91	- 0.22	0.05	- 2.10	4.42	
Years in Supervisory Positions						
Human Resource Management (94)*	1, 92	- 0.27	0.07	- 2.70	7.25	
Finance & Budget Management (94)*	1, 92	- 0.28	0.08	- 2.85	8.13	
Supply, Equipment, Facility & Services Management (93)	1, 91	- 0.22	0.05	- 2.17	4.71	
Total (94)	1, 92	- 0.24	0.06	- 2.40	5.77	
Largest Number of Personnel Supervised at One Time						
MACH Organization, Planning, & Readiness (93)	1, 91	- 0.23	0.05	- 2.28	5.20	
Human Resource Management (94)*	1, 92	- 0.32	0.10	- 3.21	10.28	
Communication (94)	1, 92	- 0.25	0.06	- 2.48	6.13	
Information Management (94)*	1, 92	- 0.30	0.09	- 2.97	8.84	
Finance & Budget Management (94)*	1, 92	- 0.32	0.10	- 3.23	10.40	
Supply, Equipment, Facility & Services Management (93)*	1, 91	- 0.27	0.07	- 2.70	7.30	
Total (94)	1, 92	- 0.31	0.10	- 3.14	9.83	

** p < 0.01*

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